

## CHAPTER 11

MAINTENANCE OF GUIDED MISSILE LAUNCHER AND GUIDED MISSILE  
LAUNCHING SECTION WINTERIZATION KITS

## Section I. GENERAL

## 198. Scope

This chapter contains maintenance information covering the guided missile launcher and guided missile launching section winterization kits that are within the scope of direct and general support personnel. The scope of maintenance is determined by the listing of parts in TM 9-1440-250-25P/1/1 and the listing of special tools in SC 4935-92-CL-011.

## 199. References

General maintenance procedures are provided in TM 9-1400-250-15/3. Additional general maintenance procedures applicable to performing maintenance on the launcher and launching section winterization kits are provided in chapter 4. It is especially important that personnel

become familiar with the contents of chapter 4 and TM 9-1400-250-15/3. No references to general maintenance procedures are provided in this chapter.

## 200. Electrical Precautions

When performing maintenance of the launcher and launching section winterization kits, perform the electrical precautions described in *a* through *d* below.

- a.* Set the main power switch on the power distribution box (fig. 2) to OFF.
- b.* Shut down the launching section generator.
- c.* Disconnect the cable assemblies from receptacle connectors J6A, J69B, and J69C on front of power distribution box.
- d.* Start the launching section generator if power is required for the other equipment.

Section II. MAINTENANCE OF GUIDED MISSILE LAUNCHER AND GUIDED  
MISSILE LAUNCHING SECTION WINTERIZATION KITS

## 201. General

This section describes maintenance of the guided missile launcher winterization kit 9027165 and the guided missile launching section winterization kit 9021103. The maintenance procedures describe the removal, disassembly, assembly, and installation of the launcher and test station winterization distribution boxes. Observe electrical precautions described in paragraph 200 when performing any maintenance on these items.

202. Guided Missile Launcher  
Winterization Kit*a. Removal.*

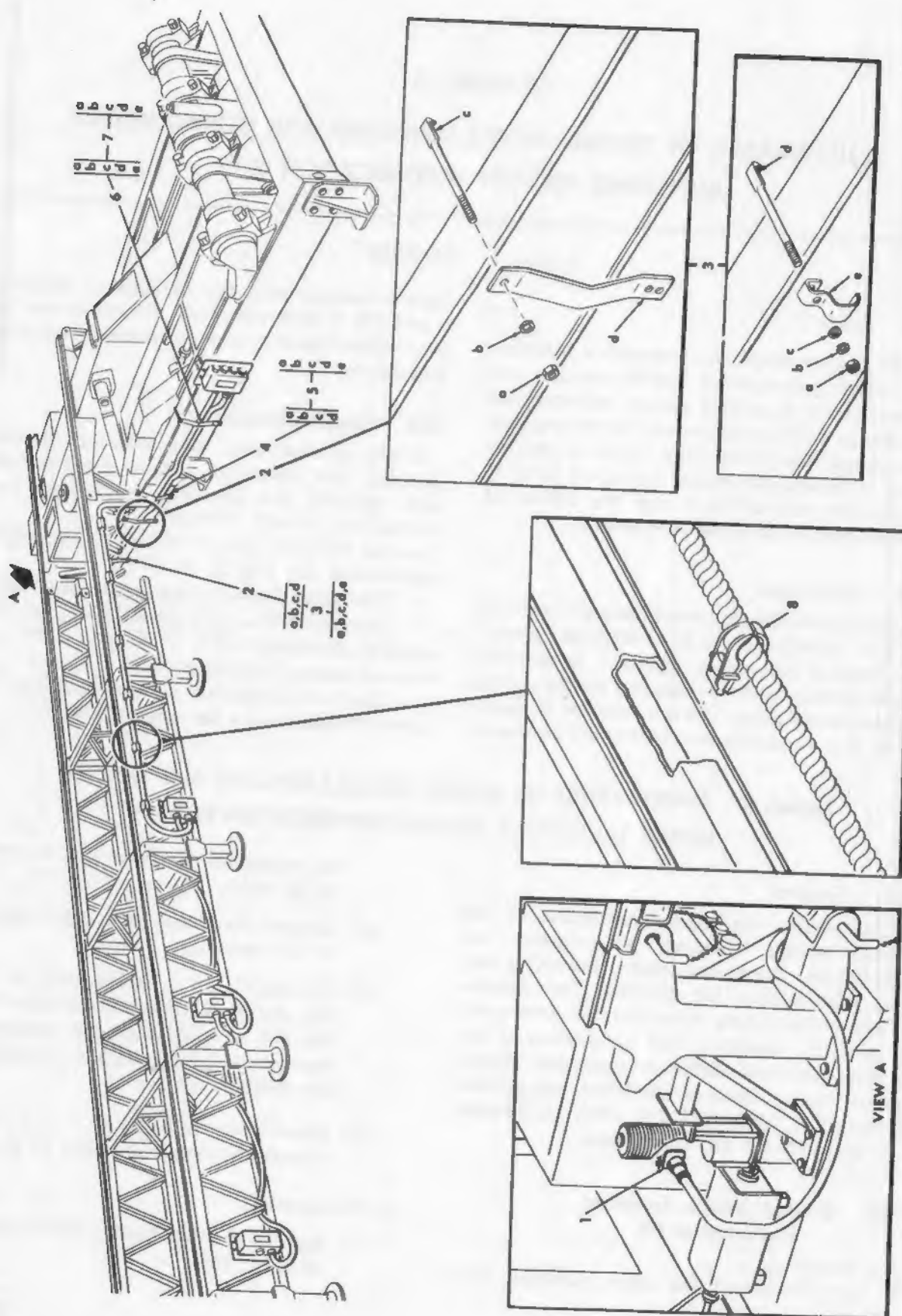
- (1) Disconnect the cable assembly from

the receptacle connector J8A (1, view A, fig. 291).

- (2) Remove the straps (group 2, 4 and 6, or 3, 5, and 7).
- (3) Disconnect the cable assembly of the test station winterization distribution box (10, fig. 292) from the receptacle connector of the launcher winterization distribution box (6 or 7).
- (4) Remove the hook bolts (4 or 5) and remove the distribution box (6 or 7).

*b. Disassembly.*

- (1) Remove the distribution box cover (3 or 8, fig. 293).



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Figure 291. Guided missile launcher and guided missile launching section winterization kits—removal and installation.

- 1—Receptacle connector J8A
- 2—Strap group (292 and subsequent)
  - a—1/4-28 hexagon nut (2)
  - b—1/4-inch flat washer (2)
  - c—Hook bolt (2)
  - d—Strap
- 3—Strap group (1 through 291)
  - a—1/4-28 hexagon nut
  - b—1/4-inch lockwasher
  - c—1/4-inch flat washer
  - d—Hook bolt
  - e—Strap
- 4—Strap group (292 and subsequent)
  - a—1/4-28 wingnut (2)
  - b—1/4-inch-id lockwasher (2)
  - c—Hook bolt (2)
  - d—Strap
- 5—Strap group (1 through 291)
  - a—1/4-28 hexagon nut
  - b—1/4-inch lockwasher
  - c—1/4-inch flat washer
  - d—Hook bolt
  - e—Strap
- 6—Strap group (292 and subsequent)
  - a—1/4-28 wingnut (2)
  - b—1/4-inch lockwasher
  - c—1/4-inch flat washer
  - d—Hook bolt
  - e—Strap
- 7—Strap group (1 through 291)
  - a—1/4-28 hexagon nut
  - b—1/4-inch lockwasher
  - c—1/4-inch flat washer
  - d—Hook bolt
  - e—Strap
- 8—Clamp (6)

Figure 291. Guided missile launcher and guided missile launching section winterization kite—removal and installation—legend.

- (2) Disassemble remaining parts of distribution box (figs. 293 and 294) as required.

*c. Assembly.*

- (1) Assemble launcher winterization distribution box (figs. 293 and 294).
- (2) Refer to TM 9-1440-250-35/1, and make proper wiring connections.
- (3) Cement gasket (3A or 8A, fig. 293) on panel (3B or 8B, fig. 293) as described in paragraph 36b.
- (4) Install distribution box cover (3 or 8, fig. 293).

*d. Installation.*

- (1) Position distribution box (6 or 7, fig. 292) and install hook bolts (4 or 5, fig. 292).
- (2) Connect cable assembly of test station winterization distribution box (10, fig. 292) to receptacle connector of launcher winterization distribution box (6 or 7, fig. 292).
- (3) Install straps (2, 4, and 6 or 3, 5, and 7, fig. 291).
- (4) Connect cable assembly of distribution box (6, fig. 292) to receptacle connector J8A (1, view A, fig. 291).

## 203. Guided Missile Launching Section Winterization Kit

*a. Removal.*

- (1) Remove two straps (4, and 6 or 5, and 7, fig. 291).

- (2) Remove six clamps (8, fig. 291) and disconnect cable assembly of distribution box (10, fig. 292) from receptacle connector of distribution box (6 or 7, fig. 292).

- (3) Remove distribution boxes (10 or 11; fig. 292) requiring maintenance.

*b. Disassembly.*

- (1) Remove distribution box cover (3 or 8, fig. 293).
- (2) Disassemble remaining parts of distribution box (figs. 293 and 294) as required.

*c. Assembly.*

- (1) Assemble test station winterization distribution box (figs. 293 and 294).
- (2) Refer to TM 9-1440-250-35/1, and make proper wiring connections.
- (3) Cement gasket (3A or 8A, fig. 293) on panel (3B or 8B, fig. 293) as described in paragraph 36b.
- (4) Install distribution box cover (3 or 8, fig. 293).

*d. Installation.*

- (1) Position distribution boxes (10 or 11, fig. 292) and install hook bolts (8 and 9, fig. 292).
- (2) Connect cable assembly of distribution box (10, fig. 292) to receptacle connector of distribution box (6 or 7, fig. 292).
- (3) Install six clamps (8, fig. 291) and two straps (4 and 6, or 5 and 7, fig. 291).

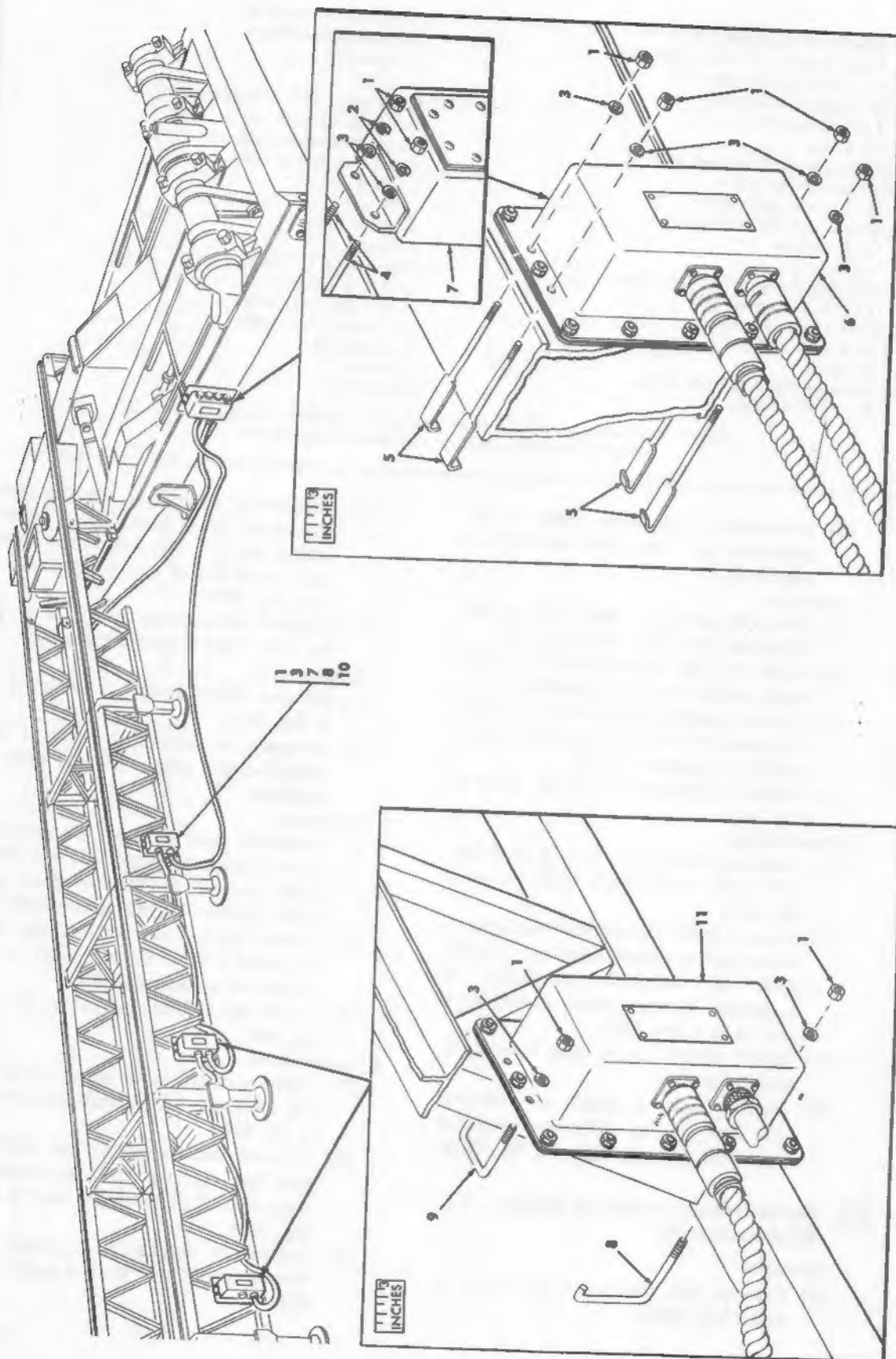


Figure 292. Guided missile launcher and guided missile launching section winterization kits—removal and installation—Continued.

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|---|---|
| 1—1/4-28 self-locking nut (4) (292 and subsequent)<br>or 1/4-28 hexagon nut (4) (1 through 291) | 7—Launcher winterization distribution box 9021276<br>(1 through 291)                                      |
| 2—1/4-inch lockwasher (4)   | 8—Hook bolt 9021263 (6)   |
| 3—1/4-inch flat washer (4)  | 9—Hook bolt 9021262 (3)   |
| 4—Hook bolt 9021261 (4)   | 10—Test station winterization distribution box 9021787<br>(292 and subsequent) or 9021329 (1 through 291) |
| 5—Hook bolt 9021260 (4)   | 11—Test station winterization distribution box 9021786<br>(292 and subsequent) or 9021330 (1 through 291) |
| 6—Launcher winterization distribution box 9021785<br>(292 and subsequent)                       |   |

*Figure 292. Guided missile launcher and guided missile launching section  
winterization kits—removal and installation—continued—legend.*

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- 1—'No. 10-32 x 5/8 panhead screw (14)
- 2—'No. 10 flat washer (14)
- 3—'Distribution box cover
  - A—Gasket
  - B—Panel
- 4—'No. 10-32 hexagon nut (12)
- 5—'No. 10 flat washer (12)
- 6—'No. 10-32 x 5/8 round-head screw (12)
- 7—'No. 10 flat washer (12)
- 8—'Distribution box cover
  - A—Gasket
  - B—Panel
- 9—'Junction box 9021783 (used with distribution box 9021785) or 9021784 (used with distribution boxes 9021786 and 9021787)
- 10—Rivet (4)
- 11—'Plate 9021808 (used with distribution box 9021785) or 9021810 (used with distribution box 9021786) or 9021809 (used with distribution box 9021787)
- 12—Cover (4)
- 13—Connector assembly (4)
  - A—Nut
  - B—Shell
  - C—Preformed packing
- 14—'1 13/32-inch flat washer (4)
- 15—No. 10-32 hexagon nut (4)
- 16—No. 10 flat washer (4)
- 17—No. 10-32 x 1 panhead screw (4)
- 18—No. 10 flat washer (4)
- 19—'No. 5-32 hexagon nut (4)
- 20—'No. 6 lockwasher (4)
- 21—No. 6 flat washer (4)
- 22—'Relay
- 23—'Junction box 9021246 (used with distribution box 9021246) or 9021277 (used with distribution boxes 9021329 and 9021330)
- 24—Rivet (4)
- 25—'Plate 9021286 (used with distribution box 9021276 or 9021334 (used with distribution box 9021329) or 9021335 (used with distribution box 9021330)

<sup>1</sup> through 291

<sup>2</sup>92 and subsequent

<sup>3</sup>Part of distribution boxes—9021276 and 9021785

Figure 293. Winterization distribution box—disassembly and assembly—legend.



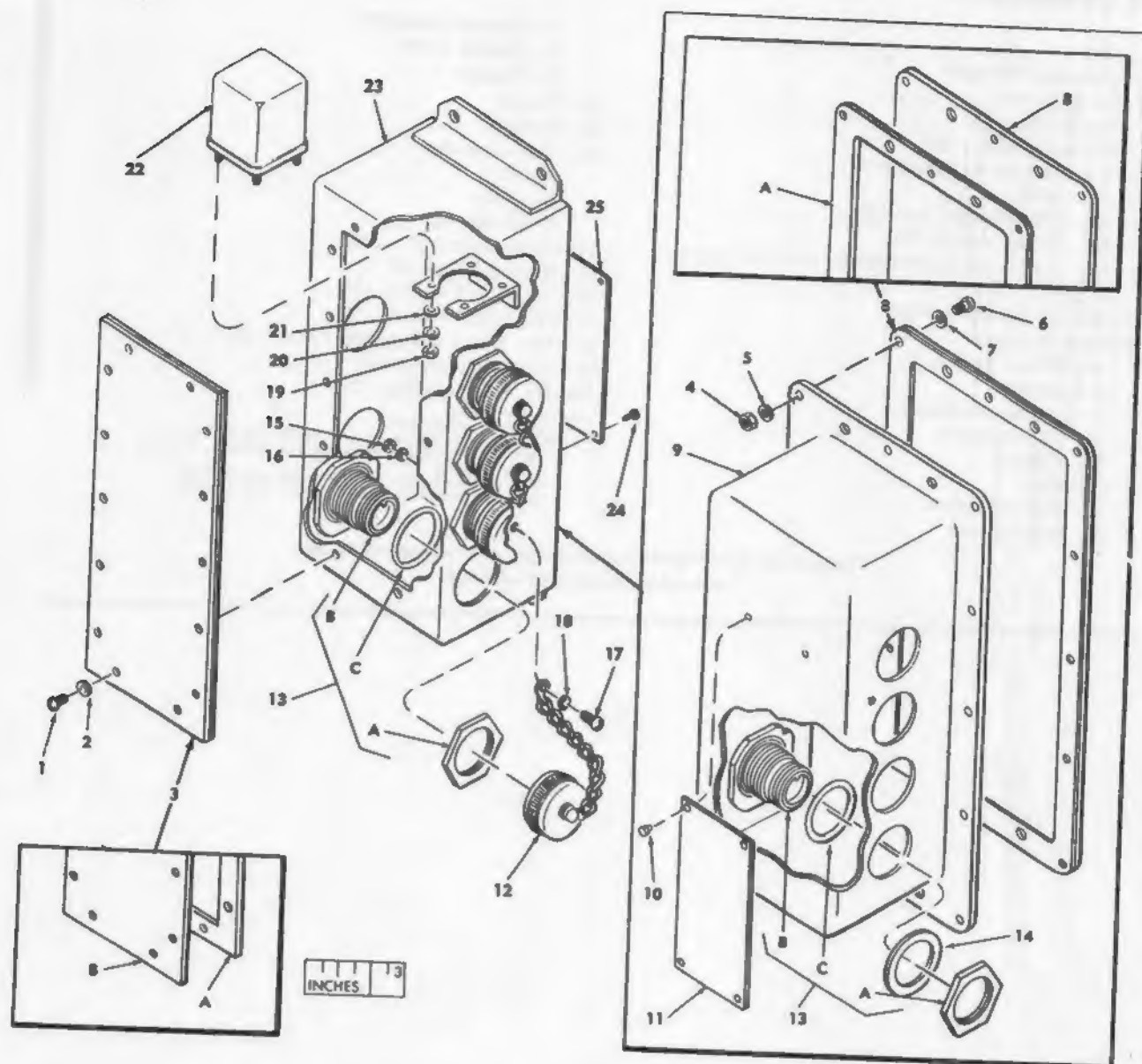


Figure 293. Winterization distribution box—disassembly and assembly.

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- 1—Cover
- 2—Connector adapter
  - A—Jam nut
  - B—Rubber seal
  - C—Insert clamp nut
- 3—1 17/32-inch flat washer
- 4—Connector
- 5—No. 10-32 hexagon nut (4)
- 6—No. 10 flat washer (4)
- 7—No. 10-32 x 5/8 cross-recessed panhead screw (4)
- 8—No. 10 flat washer (4)
- 9—Box connector
  - A—Rubber gasket
  - B—Adapter
  - C—Dummy connector
  - D—Rubber insert
  - E—Washer
- 10—Bushing
  - A—Rubber gasket
  - B—Packing nut

- C—Dummy connector
- D—Rubber insert
- E—Washer
- 11—Union
- 12—Conduit
- 13—Box connector
  - A—Nut
  - B—Body
  - C—Grommet
- 14—Cable assembly
- 15—Hexagon nut (2)
- 16—No. 2 lockwasher (2)
- 17—No. 2 flat washer (2)
- 18—No. 2-56 x 3/8 panhead screw (2)
- 19—Thermostatic switch
- 20—No. 2 flat washer (2)

- <sup>1</sup>292 and subsequent
- <sup>2</sup>Part of distribution boxes 9021785 and 9021787
- <sup>3</sup>Part of distribution boxes 9021276, 9021829, 9021785, and 9021787
- <sup>4</sup>Part of distribution boxes 9021850 and 9021786
- <sup>5</sup>Part of distribution boxes 9021276 and 9021786

Figure 294. Winterization distribution box—disassembly and assembly—continued—legend.



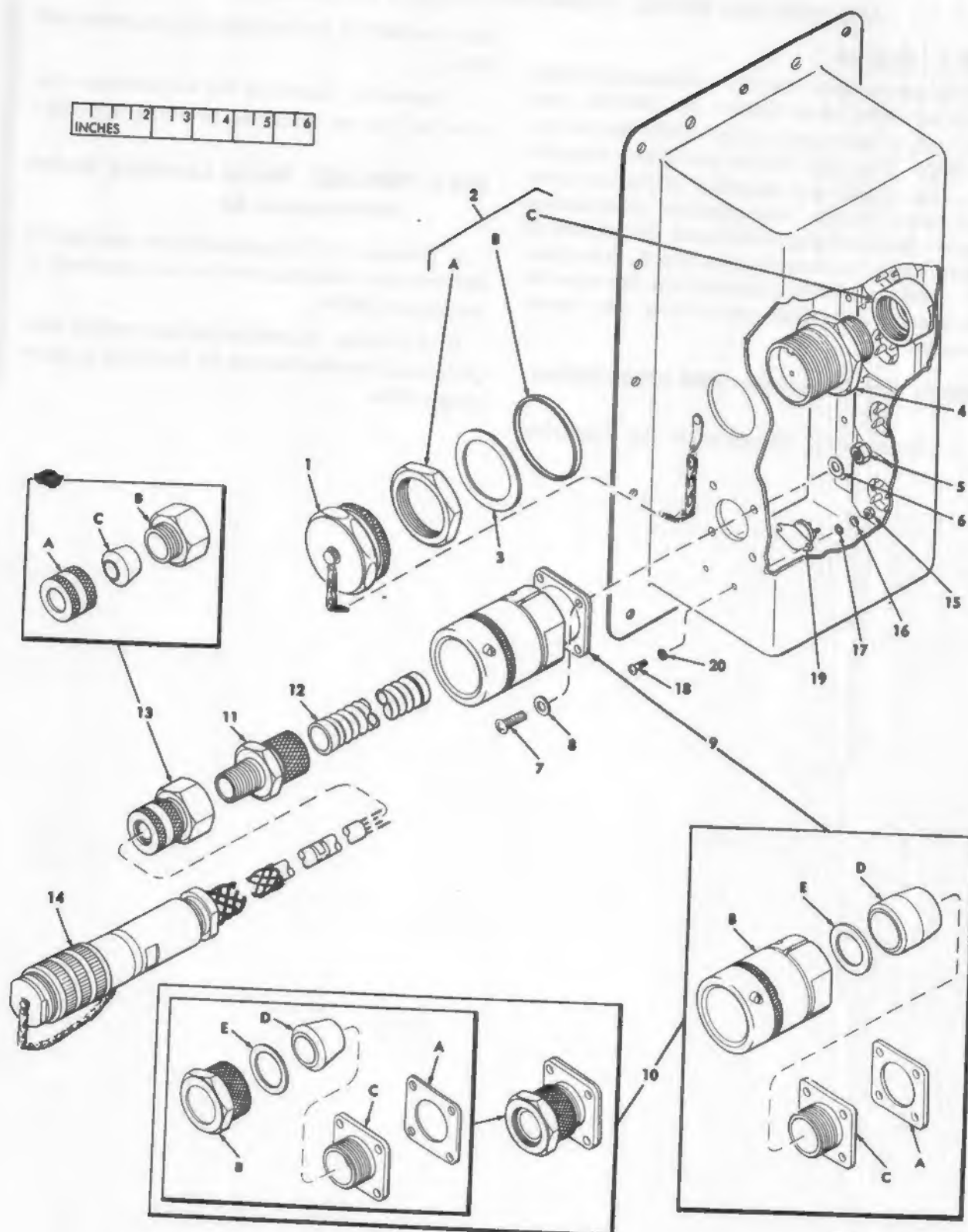


Figure 294. Winterization distribution box—disassembly and assembly—Continued.

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### Section III. MAINTENANCE OF MOBILE LAUNCHER M94 AND HERCULES MOBILE LAUNCHING SECTION WINTERIZATION KITS

#### 203.1. General

This section describes the maintenance of the launcher M94 winterization kit 9027165 and the mobile launching section winterization kit 9978720. The maintenance procedures describe the disassembly and assembly of the launcher and test station winterization distribution boxes. Removal and installation procedures of these items are described in TM 9-1440-251-10. Observe electrical precautions described in paragraph 200 when performing any maintenance.

#### 203.2. Mobile Launcher M94 Winterization Kit

*a. Disassembly.* Disassemble the winteriza-

tion distribution box as described in paragraph 202b.

*b. Assembly.* Assemble the winterization distribution box as described in paragraph 202c.

#### 203.3. HERCULES Mobile Launching Section Winterization Kit

*a. Disassembly.* Disassemble the test station winterization distribution box as described in paragraph 203b.

*b. Assembly.* Assemble the test station winterization distribution box as described in paragraph 203c.